

HDMI® EXTENDER

OVER SINGLE CAT5E/CAT6 CABLE



PRODUCT MANUAL

Vanco Part Number
VPW-280572



www.vanco1.com • 888.769.4156

DEAR CUSTOMER

Thank you for purchasing this product.
For optimum performance and safety, please
read these instructions carefully before
connecting, operating or adjusting this product.
Please keep this manual for future reference.

This product is 100% inspected and tested in the United States
to verify HDMI performance parameters.

WARNING

1. Do not expose this unit to water, moisture, or excessive humidity.
2. Do not install or place this unit in a built-in cabinet, or other confined space without adequate ventilation.
3. To prevent risk of electrical shock or fire hazard, due to overheating, do not obstruct unit's ventilation openings.
4. Do not install near any source of heat, including other units that may produce heat.
5. Do not place unit near flames.
6. Only clean unit with a dry cloth.
7. Unplug unit during lightening storms, or when not used for an extended period of time. A surge protector is strongly recommended.
8. Protect the power cord from being walked on or pinched, particularly at the plugs.
9. Use unit only with accessories specified by the manufacturer.
10. Refer all servicing to qualified personnel.

CAUTION

HDMI is a very complex technology requiring continuous authentication of the signal and the same video resolution and audio settings on all electronic equipment in the system. When there are multiple sources and displays, the video resolution and audio setting on all connected units must be adjusted to correspond with that of the display having the lowest video and audio capability.

FEATURES

Vanco Powered by Wyrestorm HDMI Extender over a single category cable (VPW-280572) is a short range single cable extender set capable of transmitting full 1080p HD video, HD audio and one-way IR source control together through the HDMI signal over a single Cat5e/6/7 of up to 131 ft under ideal conditions. For control and fine tuning, the VPW-280572 offers DIP switches on both the transmitter and receiver baluns to either encourage EDID communication between devices to ensure compatibility, or to fully adjust EQ distance range for transmission signal optimization. The VPW-280572 also features protection against ESD (electrostatic discharge) within each balun to further stabilize transmission with LEDs on each unit for clear power and video signal indication.

HDMI® over Single Cat5e/Cat6 Cable Extender ***Part # 280572***

- Allows HDMI Audio/Video Signals to be transmitted over a single Cat5e/6/7 Cable
- Transmission Range: Extends 1080p resolutions up to 131 ft (40m) over Cat5e/6/7 Cables under perfect conditions
- Automatically adjusts feedback, equalization and amplification
- Fully cascable to create larger distributions
- EDID DIP switch on Transmitter to encourage EDID communication between sources and displays in the event of signal transmission difficulties
- For even greater control and fine tuning, features a fully adjustable EQ distance range for optimizing the transmission signal
- HDMI V1.3b supported
- Follows IEEE-568B cable termination standards
- HDCP compliant
- LED indications for visual power and video signal status
- Units contain ESD (electrostatic discharge) protection technology to guard against static build-up that can damage circuitry
- Transmits a wide-band one-way IR control signal together with the HDMI signal
- 1080p HD video and HD Audio including Full support of 3D applications - frame sequential (Blu-ray) and Interlaced stereoscopic (satellite/cable 3D broadcasts)
- 24bit color depth
- IR emitters and mounting brackets included
- (2) 5V DC, UL Listed Power Supplies included
- Dimensions: 2.3" W x .9" H x 4.5" D

SPECIFICATIONS

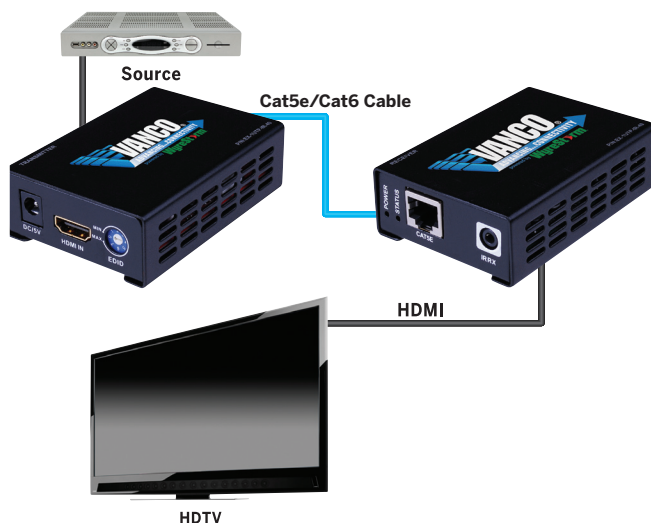
HDMI version	HDMI v1.2, v1.3
HDMI resolution supported	1080p/1080i/720p/576p/480p/576i/480i
Video color bit supported	24bit
Audio format supported	DTS-HD Master Audio, Dolby True HD, multi-channel 5.1, 7.1, stereo
Input Video Signal	0.5-1.0 volts p-p
Output Video Signal	HDMI v1.3 + HDCP (mirrors the input source to the output display)
Transmission distance	1080p up to 131ft/40m (Under perfect transmission conditions including straight cable runs with no electrical interference, bends, kinks, patch panels or wall outlets.)
Data transfer speed	6.75Gbps
Operating Temperature Range	+23 to +95 °F (-5 to +35°C)
Operating Humidity Range	5 to 90% RH (no condensation)
Power Consumption	1.5Watts each (Max.)
Power Supply	(2) DC 5V
Dimensions	2.3" W x .9" H x 4.5" D
Weight	0.3lbs/.15Kg (each)

PACKAGE CONTENTS

Before attempting to use this unit, please check the packaging and make sure the following items are contained in the shipping carton:

- 1x Vanco Powered by Wyrestorm VPW-280572 TRANSMITTER balun
- 1 x Vanco Powered by Wyrestorm VPW-280572 RECEIVER balun
- 1 x Product Manual
- 2 x pairs of balun mounting brackets
- 2 x 5VDC power supplies
- 1 x IR TX Emitter (small/round) for attachment to Input device
- 1 x IR RX Receiver (larger/rectangular) for attachment to Display - IR frequency range: 940nm IR Frequency: 38KHZ

CONNECT AND OPERATE



1. Connect 1 source such as a Blu-Ray Player, game console, A/V Receiver, Cable or Satellite Receiver, etc. to the HDMI input on the transmitter balun.
2. Connect 1 display such as an HDTV or HD Projector to the HDMI output on the receiver balun.
3. Connect a single Category 5e/6/7 up to 131 ft (40m) to both transmitter and receiver baluns.
4. Plug in the IR receiver to the (IR RX) jack port located on the Receiver balun. The IR receiver is the larger and rectangular shaped emitter; place this IR receiver at a desired place that will receive a remote signal.
5. Plug in the IR transmitter to the (IR TX) jack port located on the Transmitter balun. The IR transmitter is the smaller, and rounded at the end emitter; place in front of the IR receiver of the source, ensure that the emitter is placed in front of the IR receiver eye.
6. For power, plug in the source first, followed by the Vanco Powered by Wyrestorm Extender Receiver and then Transmitter (2 5V DC power supplies included), followed by the output connected.
7. Power on each device in the same sequence (receiver and transmitter will already be powered when plugged in).

At this point the display connected should display the source signal connected to the extender set. If no signal is being displayed, connect a shorter Cat5e/6/7 cable (less than 15 ft). If no signal is still displaying, adjust the DIP switch for EDID, if a signal displays with the shorter category cable, the EQ distance will need to be adjusted to the longer category cable being used. Use the source remote at the receiver emitter to test IR functionality. If a display is having difficulty receiving a signal after adjusting EDID and distance, access the display's menu and adjust the resolution (lowest to highest until signal is displayed). A 24 Hz vertical refresh rate may work better than 60 Hz or higher. If the IR remote function is not responding, check the emitters to ensure they are placed correctly and are plugged into the correct IR jacks on the Extender set receiver and transmitter baluns.

DIP Switch Settings

TRANSMITTER



Make sure your DIP switch is set to zero as default for initial installation.

Position	Functions
0 (default)	1080p stereo - The balun will use embedded 1080p stereo audio compatible EDID
1	1080p 5.1 - The balun will use embedded 1080p 5.1 audio EDID
2	EDID Copy Mode - the balun will copy EDID from the connected display. <i>For 3D - with both baluns powered OFF, set Transmitter DIP switch to position 2, connect the 3D source and the Receiver to the 3D display. Power on all devices and baluns. The VPW-280572 will now detect and output 3D to the display.</i>
3	1080i stereo - The balun will use embedded 1080p 5.1 EDID
4	1080p stereo - Long Cable Mode (LC Mode) - The balun will use embedded 1080p stereo audio compatible EDID configured for longer cable transmission. If experiencing poor picture quality when using a long cable run or lower quality UTP/HDMI cable, LC Mode can be selected to improve picture quality.
5	1080p 5.1 LC Mode - The balun will use embedded 1080p 5.1 audio EDID configured for longer cable transmission
6	EDID Copy LC Mode - the balun will copy EDID from the connected display configured for longer cable transmission.
7	1080i stereo LC Mode - The balun will use embedded 1080p 5.1 EDID configured for longer cable transmission

RECEIVER

DC/5V

HDMI OUT

EQ
MIN
MAX
DISTANCE

EQ

MIN
MAX

123456789A
B C D E F

DISTANCE

Occasionally, the installation environment, such as the distance between the source and display may be a factor in the perfect transmission and reception of a signal. The VPW-280572 RECEIVER balun can be further fine-tuned depending on the length of the Cat5e/Cat6/Cat7 cable used for optimum performance.

Position	Functions
0	0 - 5m (0 - 16.4ft) transmission distance
1	5 - 10m (16.4 - 32.8ft) transmission distance
2	10 - 15m (32.8 - 49.2ft) transmission distance
3	15 - 20m (49.2 - 65.6ft) transmission distance
4	20 - 25m (65.6 - 82.02ft) transmission distance
5	25 - 30m (82.02 - 98.42ft) transmission distance
6	30 - 35m (98.42 - 114.82ft) transmission distance
7 (default)	35 - 40m (114.82 - 131.23ft) transmission distance
8 to F	No function - settings reserved for future updates

TROUBLE-SHOOTING

1. Best results are usually achieved when the source and display resolutions are the same. If resolutions differ, the extenders will try to adjust the signal to match the resolution of the HDTV with the lowest resolution. This will result in a picture with a lower resolution on the other HDTV sets.
2. If you do not get audio and video, access the "setup" menu on the TV to adjust the audio and video settings. If the HDMI control circuit cannot establish a handshake, then there usually will be no audio or video in addition to a blue or black screen with a statement similar to "this protocol not supported" or "weak signal".
3. If the above mentioned messages display, reset the receiver by disconnecting the power supply. You can also disconnect all of the HDMI and power cables, wait 15 minutes for any voltages to decay and then reconnect all of the cables.
4. If you are still encountering issues, attempt the "hot-plug concept. With all of the HDMI cables disconnected, turn on the source and plug in the HDMI cable into it's output, then power up the Vanco unit and plug the HDMI cable into it's input, finally turn on the display and plug the HDMI cable from the receiver into it. This activates all of the devices in corresponding order and results in a signal being plugged into a device that is on and will attempt to connect the signal.
5. Most of the major source and display manufacturers employ a proprietary control channel to communicate between devices from the same manufacturer. Sometimes this can interfere with the HDMI control circuit or the authentication of the signal. Call the manufacturer if you experience this issue. Sometimes a player, an audio/video receiver, or a cable/satellite box may not have the latest software update, usually this can be downloaded from the manufacturer's website.
6. If you have problems with the IR control circuit, make sure that the IR RX pigtail is plugged into extender receiver and pointed at the display, and the IR TX pigtail is attached to the extender sender and pointed at the source.

TECHNICAL SUPPORT

In case of problems, please contact Vanco Technical Support by dialing 1-800-626-6445 or 1-888-769-4156. You can also email technical support issues to info@vanco1.com

When calling, please have the Model Number, Serial Number (affixed to the bottom of the unit) and Invoice available for reference during the call.

Please read this Instruction Manual prior to calling or installing this unit, since it will familiarize you with the capabilities of this product and its proper installation.

All active electronic products are 100% inspected and tested to insure highest product quality and trouble-free installation and operation. The testing process utilizes the types of high-definition sources and displays typically installed for entertainment and home theater applications.

For additional information, such as helpful installation videos, glossary of terms, etc. please visit www.vanco1.com

LIMITED WARRANTY

With the exceptions noted in the next paragraph, Vanco warrants to the original purchaser that the equipment it manufactures or sells will be free from defects in materials and workmanship for a period of one year from the date of purchase. Should this product, in Vanco's opinion, prove defective within this warranty period, Vanco, at its option, will repair or replace this product without charge. Any defective parts replaced become the property of Vanco. This warranty does not apply to those products which have been damaged due to accident, unauthorized alterations, improper repair, modifications, inadequate maintenance and care, or use in any manner for which the product was not originally intended.

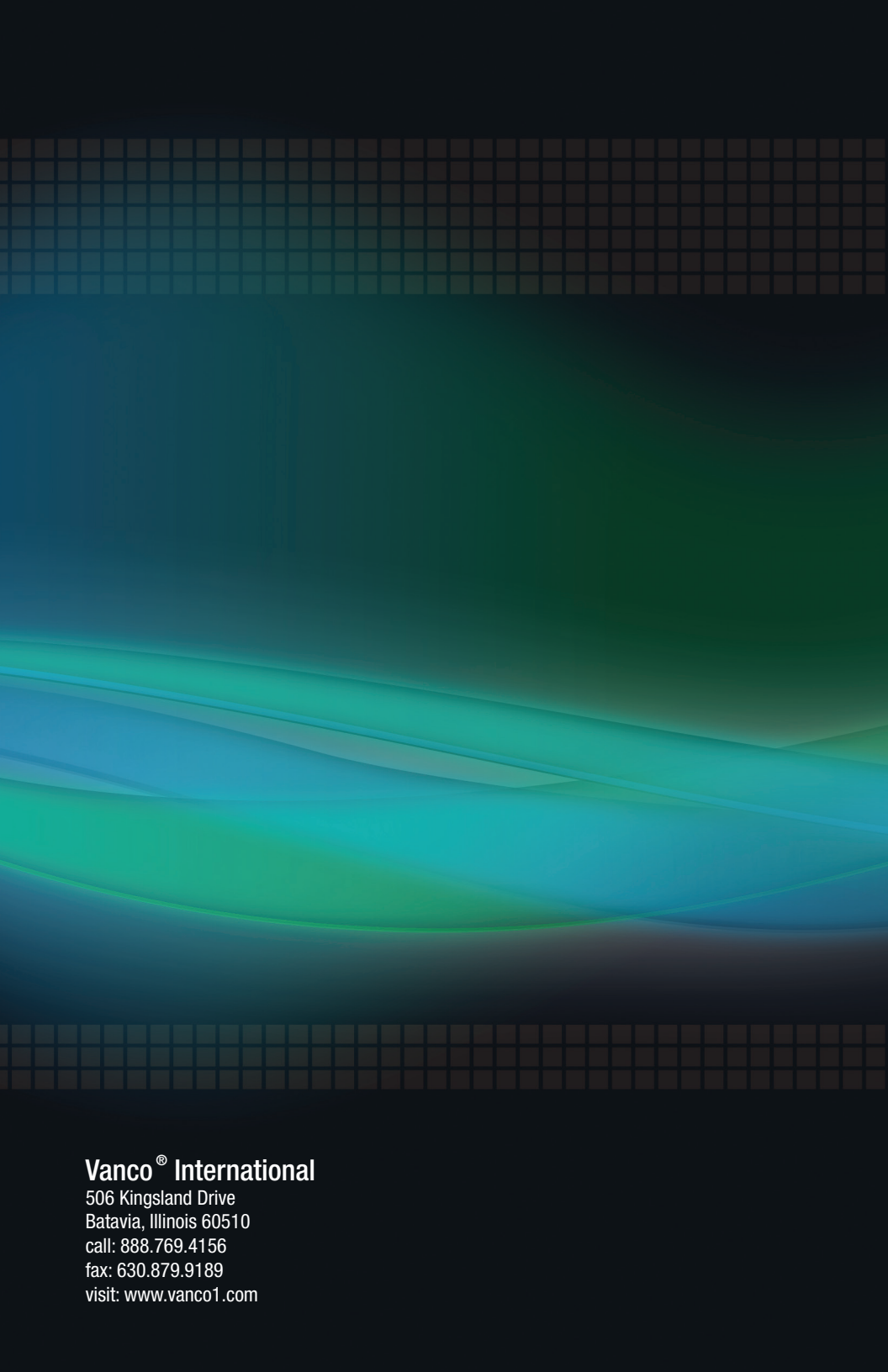
Items integrated into Vanco products that are made by other manufacturers, notably computer hard drives and liquid crystal display panels, are limited to the term of the warranty offered by the respective manufacturers. Such specific warranties are available upon request to Vanco. A surge protector, power conditioner unit, or a uninterruptible power supply must be installed in the electrical circuit to protect against power surges.

If repairs are needed during the warranty period the purchaser will be required to provide a sales receipt or other acceptable proof of purchase to the seller of this equipment. The seller will then contact Vanco regarding warranty repair or replacement.

LIABILITY STATEMENT

Every effort has been made to ensure that this product is free of defects. The manufacturer of this product cannot be held liable for the use of this hardware or any direct or indirect consequential damages arising from its use. It is the responsibility of the user and installer of the hardware to check that it is suitable for their requirements and that it is installed correctly. All rights are reserved. No parts of this manual may be reproduced or transmitted by any form or means electronic or mechanical, including photocopying, recording or by any information storage or retrieval system without the written consent of the publisher.

Manufacturer reserves the right to revise any of its hardware and software following its policy to modify and/or improve its products where necessary or desirable. This statement does not affect the legal rights of the user in any way.



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